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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/659,618

09/10/2003

Gregory B. Arasmith

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07/27/2004

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EXAMINER

RICCI, JOHN A

ART UNIT

PAPER NUMBER

3712

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,618

Applicant(s)

ARASMITH, GREGORY B.

Examiner

John Ricci

Art Unit

3712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-20, 23-31, 33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 12-19, 23-26, 33 and 34 is/are rejected.
- 7) ☒ Claim(s) 11, 20 and 27-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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Upon further consideration, the indicated allowability of some claims has been withdrawn.

* * * * *

Claims 1-4, & 6-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what is meant by the "blade increasing in width as measured from the leading edge thereof to the central axis of the broadhead"; it is not clear what is the "leading edge" and in what dimension the width is measured.

* * * * *

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

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(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1, 4, & 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuhn 6,663,518 (newly cited).

Kuhn shows an arrow head including a forward point 104, rearward threads 108 for attachment to an arrow shaft, and curved blades 114. the edge 113 is considered the "leading edge" and the width is considered the distance from the leading edge to the broadhead axis 118. as shown in figure 4, the blade has a cut-out portion 116 which is tapered toward downward portion 114.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 & 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn.

The broadhead of Kuhn has a pitch, but it is not clear if the pitch is 11.3. However, one could determine through routine experimentation that a pitch of 11.3 results in suitable arrow flight; applicant does not indicate that this

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number is critical or was chosen for any particular purpose. It would have been obvious to one of ordinary skill in the art to provide the arrow head of Kuhn with a pitch of 11.3.

Claims 7-10, 33, & 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Craft et al 5,496,042.

It is not clear if the arrow head of Kuhn is mounted for rotation independent of the arrow shaft. This would be desirable to allow the head to enter the target with a twisting motion without resistance from the shaft. For example, Craft shows that an arrow head may include a journal including a bearing insert 18 received in the arrow shaft, and a retaining cap 25 which retains the bearing insert in the shaft. This would be a desirable mounting arrangement for the arrow head of Kuhn to allow the head to rotate independently of the shaft. It would have been obvious to one of ordinary skill in the art to provide the arrow head of Kuhn with the bearing insert and retaining cap shown by Craft.

With regard to claim 34, the broadhead of Kuhn has a pitch, but it is not clear if the pitch is 11.3. However, one could determine through routine experimentation that a pitch of 11.3 results in suitable arrow flight; applicant does not indicate that this number is critical or was chosen for any particular purpose. It would have been obvious to

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one of ordinary skill in the art to provide the arrow head of Kuhn with a pitch of 11.3.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Richter 2,940,758.

It is not clear if the blades of Kuhn are easily replaceable. One would recognize that it would be desirable for the blades to be replaceable so any damaged blades could be replaced. For example, Richter shows that an arrow head may have blades that fit into grooves 24, and retained with lugs 34. This would be desirable with the blades of Kuhn to allow easy replacement. It would have been obvious to one of ordinary skill in the art to provide the blades of Kuhn with the mounting lugs shown by Richter.

Claims 15, 19, 23, & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Craft et al 5,496,042.

Craft shows an arrow head including a bearing insert 18 received in the arrow shaft, and a retaining cap 25 which retains the bearing insert in the shaft.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Craft in view of Kuhn.

It is not clear if the arrow head shown by Craft has curved blades. Curved blades would be desirable to promote rotation in flight, so the arrow head will be more aerodynamic. For example, Kuhn shows that an arrow head may have curved blades for this purpose. It would have been

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obvious to one of ordinary skill in the art to provide the arrow head of Craft with curved blades, as suggested by Kuhn.

Claims 17 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Craft et al.

It is not clear if the arrow head of Craft has a pitch of 11.3. However, one could determine through routine experimentation that a pitch of 11.3 results in suitable arrow flight; applicant does not indicate that this number is critical or was chosen for any particular purpose. It would have been obvious to one of ordinary skill in the art to provide the arrow head of Craft with a pitch of 11.3.

Claims 15, 19, & 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Tone 4,534,568.

Tone shows an arrow head including a bearing insert 13 received in the arrow shaft, and a retaining cap 25 which allows rotation of the arrow head 41 relative to the arrow shaft. The bearing insert has a flanged portion 17 which rests on the end of the arrow shaft, and the flange also contacts an inner surface 29 of the retaining cap.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tone in view of Kuhn.

It is not clear if the arrow head shown by Tone has curved blades. Curved blades would be desirable to promote rotation in flight, so the arrow head will be more

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aerodynamic. For example, Kuhn shows that an arrow head may have curved blades for this purpose. It would have been obvious to one of ordinary skill in the art to provide the arrow head of Tone with curved blades, as suggested by Kuhn.

Claims 17 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tone.

It is not clear if the arrow head of Tone has a pitch of 11.3. However, one could determine through routine experimentation that a pitch of 11.3 results in suitable arrow flight; applicant does not indicate that this number is critical or was chosen for any particular purpose. It would have been obvious to one of ordinary skill in the art to provide the arrow head of Tone with a pitch of 11.3.

* * * * *

Claims 11, 20, & 27-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 31 is allowed.

* * * * *

This letter was prepared by Examiner John Ricci, who can be reached at:

Voice: 703-308-4751

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Fax: Use 703-872-9306 for papers to be delivered directly to the mail room, like formal amendments and responses, change of address, power of attorney, petitions.

Use 703-783-0439 for papers to be delivered directly to the Examiner, like informal or proposed responses for discussion, or notes in preparation for an interview.

Response by Fax is encouraged to reduce mail processing time. Please don't send duplicate papers by mail and Fax.

My supervisor is Derris Banks, 703-308-1745.

PTO main switchboard: 800-786-9199.

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**JOHN RICCI
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ART UNIT 3712**